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# Fax

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**To:** Examiner Budd **From:** Christopher A. Bennett  
**Fax:** 703-872-9319 **Date:** May 6, 2003  
**Phone:** 703-308-3929 **Pages:** 5  
**Re:** 09/740,913 **CC:**

**Comments:**

Dear Examiner Budd,

Please find attached a Request for Reconsideration for Application No. 09/740,913.

Respectfully submitted,



Christopher A. Bennett  
(Registration Number 46,710)

**RESPONSE UNDER 37 C.F.R. § 1.116  
EXPEDITED PROCEDURE  
GROUP ART UNIT 2834**

**CERTIFICATE OF FACSIMILE TRANSMISSION**  
I hereby certify that this correspondence is being transmitted to  
Group Art Unit 2834, 703-872-9319, addressed to Commissioner  
for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Date: May 6, 2003

Sonia V. McVean  
Sonia V. McVean

**PATENT**  
36856.390

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant: Masaya WAJIMA et al.	Art Unit: 2834
Serial No.: 09/740,913	
Filed: December 20, 2000	Examiner: M. Budd
Title: PIEZOELECTRIC RESONATOR AND PIEZOELECTRIC OSCILLATOR	

**REQUEST FOR RECONSIDERATION AFTER FINAL REJECTION**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In response to the Office Action dated February 26, 2003, please reconsider the above identified application in view of the following remarks.

Claims 1-4, 7, 9, 11-15, 18 and 20 are pending in this application.

Claims 1-4, 7, 9, 11-15, 18 and 20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Kuroda (U.S. 6,215,229), Wajima (U.S. 6,274,968) or Sugiyama (U.S. 6,160,462) in view of Tsuji et al. (U.S. 5,699,027) or Onishi (U.S. 5,459,368). Applicants respectfully traverse the rejection of claims 1-4, 7, 9, 11-15, 18 and 20.

Claim 1 recites:

"A piezoelectric resonator comprising:  
a piezoelectric resonating element; and  
a first exterior substrate and a second exterior substrate laminated  
over and under, respectively, on said piezoelectric resonating element;  
wherein each of said first exterior substrate and said second

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exterior substrate includes a multilayer substrate having at least one layer of an internal electrode;

said first exterior substrate and said second exterior substrate each includes a first substrate material layer which is liquid-sintered and a second substrate material layer which is not sintered at the sintering temperature of said first substrate material layer; and

**each of said first exterior substrate and said second exterior substrate has a deflective strength of at least 2000 kg/cm<sup>2</sup>.** (emphasis added)

Applicants' claim 1 recites the feature of "each of said first exterior substrate and said second exterior substrate has a deflective strength of at least 2000 kg/cm<sup>2</sup>."

Applicants' claim 11 recites features that are similar to the features recited in Applicants' claim 1. With the improved features of claims 1 and 11, Applicants have been able to provide a resonator with greatly improved accuracy and strength, which allows for a reduced thickness (see, for example, the paragraph bridging pages 28 and 29 of the Specification).

First, the Examiner has alleged in the first paragraph on page 2 of the Office Action that "[i]t has long been held that optimization of a known device is within the skill expected of the routineer." The Examiner is reminded that MPEP § 2144.05 states that "[a] particular parameter must first be recognized as a result-effective variable, i.e., a variable which achieves a recognized result, before the determination of the optimum or workable ranges of said variable might be characterized as routine experimentation. In re Antonie, 559 F.2d 618, 195 USPQ 6 (CCPA 1977)." However, the Examiner has failed to provide a single reference which even mentions the deflective strength of a substrate and has certainly failed to provide a reference which teaches or suggests that the deflection strength is a result effective variable.

The Examiner is hereby requested to cite a reference in support of his position that it was well known at the time of Applicants' invention the deflective strength of substrate in a piezoelectric resonator was a recognized result effective variable. If the rejection is based on facts within the personal knowledge of the Examiner, the data should be supported as specifically as possible and the rejection must be supported by

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an affidavit from the Examiner, which would be subject to contradiction or explanation by affidavit of Applicants or other persons. See 37 C.F.R. § 1.104(d)(2).

Second, the Examiner has alleged in the first paragraph on page 2 of the Office Action that "the deflection strength cannot be considered of critical importance as it has only casual mention in the original disclosure and was not included in any claims prior to the amendment filed 12-23-02."

As noted above and in the previous Amendment, dated December 17, 2002, the importance of this feature is discussed in the paragraph bridging pages 28 and 29. The Examiner is reminded that the importance of a feature is not measured by the frequency in which it is recited in the Application.

More importantly, Applicants are completely bewildered by this **new** standard of patentability proffered the Examiner. MPEP § 2144.05 clearly states that to rebut a *prima facie* case of obviousness an applicant can show the criticality of a **range of a result effective variable**, **NOT** the criticality of a **variable** as suggested by the Examiner. Nevertheless, it is the Applicants' position that the Examiner has completely failed, in the first instance, to establish a *prima facie* case of obviousness.

Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection of claims 1 and 11 under 35 U.S.C. §103(a) as being obvious over Kuroda, Wajima or Sugiyama in view of Tsuji et al. or Onishi.

Accordingly, Applicants respectfully submit that Kuroda, Wajima, Sugiyama, Tsuji et al., and Onishi, applied alone or in combination, fail to teach or suggest the unique combination and arrangement of elements recited in claims 1 and 11 of the present application. Claims 2-10 depend upon claim 1 and are therefore allowable for at least the reasons that claim 1 is allowable. Claim 12-15, 18, and 20 depend upon claim 11 and are therefore allowable for at least the reasons that claim 11 is allowable.

In view of the foregoing amendments and remarks, Applicants respectfully submit that this application is in condition for allowance. Favorable consideration and prompt allowance are solicited.

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The Commissioner is authorized to charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 50-1353.

Respectfully submitted,

Date: May 6, 2003

  
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